

# DIABETES IN SODON

## Estimated Number of Persons With Diabetes (PWD) in SODON

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **61,950 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **3,230 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **710 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **24,270 adults have diabetes but are not aware of it.**<sup>4</sup> Among adults, **167,883 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in SODON in 2002 Diagnosed with Diabetes<sup>1</sup>

Age Group	Total*	Female	Male	White	African American
18-44	10,220	4,740	5,480	8,020	1,310
45-54	13,630	6,460	7,170	11,600	1,400
55-64	14,550	7,000	7,550	12,440	1,700
65-74	11,750	6,110	5,640	10,240	1,650
75+	11,800	7,030	4,770	10,640	960
<b>Total</b>	<b>61,950</b>	<b>31,340</b>	<b>30,610</b>	<b>52,940</b>	<b>7,020</b>
(95% CI**)	(±6,060)	(±4,010)	(±4,510)	(±5,500)	(±1,940)

\* Difference in totals is due to presence of 1,990 "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in SODON may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the 6th leading cause of death in Michigan. Diabetes was the primary cause of death for 345 individuals (3.5% of all deaths) and a contributing cause in an additional 634 deaths (6.4%).<sup>6</sup>

### Deaths in SODON of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	Male	White	Female	Male
0-44	14 (1.37)	6 (NA)	7 (1.57)		0 (NA)	1 (NA)
45-54	28 (2.05)	13 (2.44)	10 (1.59)		2 (NA)	3 (NA)
55-64	42 (2.89)	13 (2.11)	22 (3.50)		3 (NA)	4 (NA)
65-74	67 (5.70)	33 (6.29)	24 (4.81)		5 (NA)	3 (NA)
75+	194 (16.44)	109 (17.27)	71 (16.40)		10 (15.15)	3 (NA)
<b>Total</b>	<b>345 (5.57)</b>	<b>174 (6.54)</b>	<b>134 (5.09)</b>		<b>20 (0.36)</b>	<b>14 (0.41)</b>

\*Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 23,155 hospital discharges of SODON residents where diabetes was listed among the diagnoses. There were 1,532 (6.6%) of these hospitalizations that were directly due to diabetes, while an additional 7,881 (34.0%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 18,999 discharges with 1,400 (5.9%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	1,400	5.9%	1,532	6.6%
Hypertension	244	1.0%	307	1.3%
Other CVD	6,648	36.7%	7,574	32.7%
Kidney	181	1.1%	248	1.1%
Pneumonia	675	3.2%	783	3.4%
Other	9,851	52.2%	12,711	54.9%
<b>TOTAL</b>	<b>18,999</b>		<b>23,155</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 124 or 8.1% of the 1,532 hospital discharges with a primary diagnosis of diabetes. This compares to 181 amputations or 12.9% of the 1,400 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

Further information can be obtained from:  
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by calling (517) 335-8445 or on the WEB at: <http://www.michigan.gov/diabetes>

# DIABETES IN BERRIEN COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Berrien County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **10,030 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **420 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **110 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **3,940 Berrien County adults have diabetes but are not aware of it.**<sup>4</sup> Among Berrien County adults, **25,929 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Berrien County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White	African American
18-44	1,450 ( 2.5)	630 ( 2.1)	820 ( 2.9)	1,020 ( 2.2)	340 ( 3.6)
45-54	2,230 ( 9.4)	960 ( 7.9)	1,260 (10.8)	1,760 ( 8.7)	400 (13.2)
55-64	2,470 (14.9)	1,230 (14.4)	1,240 (15.4)	1,930 (13.2)	460 (26.4)
65-74	1,940 (16.6)	950 (14.9)	980 (18.7)	1,560 (15.1)	510 (42.1)
75+	1,940 (16.6)	1,180 (16.2)	820 (18.4)	1,740 (16.1)	260 (30.5)
<b>Total</b> (95% CI**)	<b>10,030 ( 7.4)</b> (±900)	<b>4,950 ( 7.0)</b> (±610)	<b>5,120 ( 7.8)</b> (±660)	<b>8,010 ( 6.9)</b> (±760)	<b>1,970 (10.8)</b> (±520)

\* Difference in totals is due to presence of 160 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Berrien County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the fifth leading cause of death for Berrien County residents. Diabetes was the primary cause of death for 55 individuals (3.6% of all deaths) and a contributing cause in an additional 103 deaths (6.7%).<sup>6</sup>

### Deaths in Berrien County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White Male	African American Female	African American Male
0-44	1 (NA)	1 (NA)	0 (NA)	0 (NA)	0 (NA)
45-54	8 (3.59)	2 (NA)	4 (NA)	2 (NA)	0 (NA)
55-64	8 (3.24)	2 (NA)	4 (NA)	1 (NA)	1 (NA)
65-74	12 (6.19)	5 (NA)	4 (NA)	1 (NA)	1 (NA)
75+	26 (13.40)	14 (13.86)	8 (11.27)	2 (NA)	1 (NA)
<b>Total</b>	<b>55 (5.48)</b>	<b>24 (6.25)</b>	<b>20 (4.88)</b>	<b>6 (NA)</b>	<b>3 (NA)</b>

\*Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 3,592 hospital discharges of Berrien County residents where diabetes was listed among the diagnoses. There were 238 (6.6%) of these hospitalizations that were directly due to diabetes, while an additional 1,323 (36.8%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 3,080 discharges with 245 (8.0%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	245	8.0%	238	6.6%
Hypertension	68	2.2%	77	2.1%
Other CVD	1,085	35.2%	1,246	34.7%
Kidney	22	0.7%	31	0.9%
Pneumonia	86	2.8%	81	2.3%
Other	1,574	51.1%	1,919	53.4%
<b>TOTAL</b>	<b>3,080</b>		<b>3,592</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 19 or 8.0% of the 238 hospital discharges with a primary diagnosis of diabetes. This compares to 28 amputations or 11.4% of the 245 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN BRANCH COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Branch County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **2,500 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **120 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **30 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **1,040 Branch County adults have diabetes but are not aware of it.**<sup>4</sup> Among Branch County adults, **7,242 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Branch County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	430 ( 2.4)	230 ( 2.7)	200 ( 2.1)	400 ( 2.4)
45-54	480 ( 7.4)	270 ( 8.6)	210 ( 6.2)	440 ( 7.0)
55-64	560 (12.3)	250 (10.9)	320 (13.6)	550 (12.2)
65-74	510 (16.1)	290 (17.2)	220 (14.9)	490 (15.6)
75+	520 (17.6)	300 (16.6)	220 (19.0)	510 (17.3)
<b>Total</b> (95% CI**)	<b>2,500 ( 7.2)</b> (±280)	<b>1,340 ( 7.7)</b> (±190)	<b>1,170 ( 6.8)</b> (±210)	<b>2,390 ( 7.2)</b> (±280)

\* Difference in totals is due to presence of 170 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Branch County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for Branch County residents. Diabetes was the primary cause of death for 20 individuals (4.6% of all deaths) and a contributing cause in an additional 20 deaths (4.6%).<sup>6</sup>

### Deaths in Branch County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	0 (NA)	0 (NA)		0 (NA)
45-54	0 (NA)	0 (NA)		0 (NA)
55-64	5 (NA)	2 (NA)		3 (NA)
65-74	6 (NA)	4 (NA)		2 (NA)
75+	9 (17.31)	6 (NA)		3 (NA)
<b>Total</b>	<b>20 (8.00)</b>	<b>12 (9.52)</b>		<b>8 (7.21)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 1,001 hospital discharges of Branch County residents where diabetes was listed among the diagnoses. There were 64 (6.4%) of these hospitalizations that were directly due to diabetes, while an additional 329 (32.9%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 844 discharges with 51 (6.0%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	51	6.0%	64	6.4%
Hypertension	10	1.2%	5	0.5%
Other CVD	353	41.8%	324	32.4%
Kidney	7	0.8%	11	1.1%
Pneumonia	30	3.6%	27	2.7%
Other	393	46.6%	570	56.9%
<b>TOTAL</b>	<b>844</b>		<b>1,001</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 9 or 14.1% of the 64 hospital discharges with a primary diagnosis of diabetes. This compares to 10 amputations or 19.6% of the 51 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
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# DIABETES IN CALHOUN COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Calhoun County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **8,290 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **380 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **90 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **3,190 Calhoun County adults have diabetes but are not aware of it.**<sup>4</sup> Among Calhoun County adults, **21,523 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Calhoun County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White	African American
18-44	1,280 ( 2.5)	550 ( 2.1)	730 ( 2.9)	960 ( 2.2)	200 ( 3.6)
45-54	1,870 ( 9.4)	800 ( 7.9)	1,070 (10.8)	1,530 ( 8.7)	260 (13.2)
55-64	2,000 (14.9)	1,000 (14.4)	1,000 (15.4)	1,580 (13.2)	340 (26.4)
65-74	1,610 (16.6)	800 (14.9)	810 (18.7)	1,320 (15.1)	360 (42.1)
75+	1,530 (16.6)	960 (16.2)	610 (18.4)	1,370 (16.1)	210 (30.5)
<b>Total</b> (95% CI**)	<b>8,290 ( 7.4)</b> (±770)	<b>4,110 ( 7.0)</b> (±520)	<b>4,220 ( 7.8)</b> (±560)	<b>6,760 ( 6.9)</b> (±680)	<b>1,370 (10.8)</b> (±330)

\* Difference in totals is due to presence of 280 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Calhoun County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for Calhoun County residents. Diabetes was the primary cause of death for 50 individuals (3.4% of all deaths) and a contributing cause in an additional 117 deaths (8%).<sup>6</sup>

### Deaths in Calhoun County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White Male	African American Female	African American Male
0-44	1 (NA)	0 (NA)	1 (NA)	0 (NA)	0 (NA)
45-54	7 (3.74)	5 (NA)	1 (NA)	0 (NA)	1 (NA)
55-64	5 (NA)	1 (NA)	2 (NA)	1 (NA)	1 (NA)
65-74	5 (NA)	3 (NA)	2 (NA)	0 (NA)	0 (NA)
75+	32 (20.92)	17 (20.73)	13 (24.53)	2 (NA)	0 (NA)
<b>Total</b>	<b>50 (6.03)</b>	<b>26 (8.00)</b>	<b>19 (5.52)</b>	<b>3 (NA)</b>	<b>2 (NA)</b>

\*Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 3,676 hospital discharges of Calhoun County residents where diabetes was listed among the diagnoses. There were 272 (7.4%) of these hospitalizations that were directly due to diabetes, while an additional 1,280 (34.8%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 2,849 discharges with 253 (8.9%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	253	8.9%	272	7.4%
Hypertension	30	1.1%	42	1.1%
Other CVD	1,013	35.6%	1,238	33.7%
Kidney	29	1.0%	40	1.1%
Pneumonia	100	3.5%	151	4.1%
Other	1,424	50.0%	1,933	52.6%
<b>TOTAL</b>	<b>2,849</b>		<b>3,676</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 11 or 4.0% of the 272 hospital discharges with a primary diagnosis of diabetes. This compares to 27 amputations or 10.7% of the 253 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
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# DIABETES IN CASS COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Cass County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **2,920 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **110 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **30 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **1,240 Cass County adults have diabetes but are not aware of it.**<sup>4</sup> Among Cass County adults, **8,739 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Cass County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	440 ( 2.4)	240 ( 2.7)	190 ( 2.1)	400 ( 2.4)
45-54	590 ( 7.4)	350 ( 8.6)	250 ( 6.2)	530 ( 7.0)
55-64	720 (12.3)	320 (10.9)	400 (13.6)	670 (12.2)
65-74	620 (16.1)	350 (17.2)	270 (14.9)	560 (15.6)
75+	550 (17.6)	300 (16.6)	250 (19.0)	500 (17.3)
<b>Total</b> (95% CI**)	<b>2,920 ( 7.2)</b> (±310)	<b>1,560 ( 7.7)</b> (±220)	<b>1,360 ( 6.8)</b> (±230)	<b>2,660 ( 7.2)</b> (±300)

\* Difference in totals is due to presence of 280 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Cass County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for Cass County residents. Diabetes was the primary cause of death for 11 individuals (2.3% of all deaths) and a contributing cause in an additional 36 deaths (7.6%).<sup>6</sup>

### Deaths in Cass County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	0 (NA)	0 (NA)		0 (NA)
45-54	2 (NA)	1 (NA)		1 (NA)
55-64	1 (NA)	0 (NA)		1 (NA)
65-74	0 (NA)	0 (NA)		0 (NA)
75+	8 (14.55)	4 (NA)		3 (NA)
<b>Total</b>	<b>11 (3.77)</b>	<b>5 (NA)</b>		<b>5 (NA)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 1,119 hospital discharges of Cass County residents where diabetes was listed among the diagnoses. There were 76 (6.8%) of these hospitalizations that were directly due to diabetes, while an additional 373 (33.3%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 957 discharges with 57 (6.0%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	57	6.0%	76	6.8%
Hypertension	22	2.3%	17	1.5%
Other CVD	345	36.1%	356	31.8%
Kidney	8	0.8%	9	0.8%
Pneumonia	43	4.5%	49	4.4%
Other	482	50.4%	612	54.7%
<b>TOTAL</b>	<b>957</b>		<b>1,119</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 3 or 3.9% of the 76 hospital discharges with a primary diagnosis of diabetes. This compares to 6 amputations or 10.5% of the 57 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
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# DIABETES IN HILLSDALE COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Hillsdale County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **2,580 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **50 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **30 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **1,050 Hillsdale County adults have diabetes but are not aware of it.**<sup>4</sup> Among Hillsdale County adults, **7,473 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Hillsdale County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	410 ( 2.4)	230 ( 2.7)	190 ( 2.1)	400 ( 2.4)
45-54	500 ( 7.4)	290 ( 8.6)	210 ( 6.2)	470 ( 7.0)
55-64	600 (12.3)	270 (10.9)	330 (13.6)	590 (12.2)
65-74	550 (16.1)	320 (17.2)	230 (14.9)	530 (15.6)
75+	520 (17.6)	300 (16.6)	220 (19.0)	510 (17.3)
<b>Total</b> (95% CI**)	<b>2,580 ( 7.2)</b> (±280)	<b>1,410 ( 7.7)</b> (±200)	<b>1,180 ( 6.8)</b> (±200)	<b>2,500 ( 7.2)</b> (±290)

\* Difference in totals is due to presence of 90 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Hillsdale County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the fifth leading cause of death for Hillsdale County residents. Diabetes was the primary cause of death for 16 individuals (3.7% of all deaths) and a contributing cause in an additional 33 deaths (7.6%).<sup>6</sup>

### Deaths in Hillsdale County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	0 (NA)	0 (NA)		0 (NA)
45-54	0 (NA)	0 (NA)		0 (NA)
55-64	1 (NA)	0 (NA)		1 (NA)
65-74	4 (NA)	2 (NA)		2 (NA)
75+	11 (21.15)	4 (NA)		7 (33.33)
<b>Total</b>	<b>16 (6.20)</b>	<b>6 (NA)</b>		<b>10 (8.70)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 1,003 hospital discharges of Hillsdale County residents where diabetes was listed among the diagnoses. There were 46 (4.6%) of these hospitalizations that were directly due to diabetes, while an additional 426 (42.5%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 832 discharges with 44 (5.3%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	44	5.3%	46	4.6%
Hypertension	9	1.1%	8	0.8%
Other CVD	355	42.7%	418	41.7%
Kidney	3	0.4%	11	1.1%
Pneumonia	21	2.5%	19	1.9%
Other	400	48.1%	501	50.0%
<b>TOTAL</b>	<b>832</b>		<b>1,003</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 3 or 6.5% of the 46 hospital discharges with a primary diagnosis of diabetes. This compares to 5 amputations or 11.4% of the 44 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN JACKSON COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Jackson County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **9,430 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **300 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **100 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **3,600 Jackson County adults have diabetes but are not aware of it.**<sup>4</sup> Among Jackson County adults, **25,071 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Jackson County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White	African American
18-44	1,550 ( 2.5)	610 ( 2.1)	960 ( 2.9)	1,190 ( 2.2)	220 ( 3.6)
45-54	2,220 ( 9.4)	900 ( 7.9)	1,330 (10.8)	1,890 ( 8.7)	220 (13.2)
55-64	2,250 (14.9)	1,090 (14.4)	1,160 (15.4)	1,890 (13.2)	190 (26.4)
65-74	1,700 (16.6)	810 (14.9)	900 (18.7)	1,470 (15.1)	200 (42.1)
75+	1,710 (16.6)	1,050 (16.2)	700 (18.4)	1,600 (16.1)	100 (30.5)
<b>Total</b> (95% CI**)	<b>9,430 ( 7.4)</b> (±900)	<b>4,460 ( 7.0)</b> (±570)	<b>5,050 ( 7.8)</b> (±700)	<b>8,040 ( 6.9)</b> (±820)	<b>930 (10.8)</b> (±290)

\* Difference in totals is due to presence of 580 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Jackson County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for Jackson County residents. Diabetes was the primary cause of death for 54 individuals (3.6% of all deaths) and a contributing cause in an additional 87 deaths (5.9%).<sup>6</sup>

### Deaths in Jackson County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White Male	Female	African American Male
0-44	4 (NA)	2 (NA)	1 (NA)	0 (NA)	1 (NA)
45-54	4 (NA)	3 (NA)	0 (NA)	0 (NA)	1 (NA)
55-64	11 (4.89)	6 (NA)	4 (NA)	1 (NA)	0 (NA)
65-74	17 (10.00)	10 (14.93)	5 (NA)	1 (NA)	1 (NA)
75+	18 (10.53)	6 (NA)	9 (14.06)	2 (NA)	1 (NA)
<b>Total</b>	<b>54 (5.73)</b>	<b>27 (7.18)</b>	<b>19 (4.48)</b>	<b>4 (NA)</b>	<b>4 (NA)</b>

\*Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 3,618 hospital discharges of Jackson County residents where diabetes was listed among the diagnoses. There were 289 (8.0%) of these hospitalizations that were directly due to diabetes, while an additional 1,188 (32.8%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 2,954 discharges with 245 (8.3%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	245	8.3%	289	8.0%
Hypertension	29	1.0%	43	1.2%
Other CVD	984	33.3%	1,145	31.6%
Kidney	39	1.3%	36	1.0%
Pneumonia	116	3.9%	141	3.9%
Other	1,541	52.2%	1,964	54.3%
<b>TOTAL</b>	<b>2,954</b>		<b>3,618</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 28 or 9.7% of the 289 hospital discharges with a primary diagnosis of diabetes. This compares to 44 amputations or 18.0% of the 245 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN KALAMAZOO COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Kalamazoo County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **13,320 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **550 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **160 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **4,970 Kalamazoo County adults have diabetes but are not aware of it.**<sup>4</sup> Among Kalamazoo County adults, **34,277 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Kalamazoo County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White	African American
18-44	2,520 ( 2.5)	1,080 ( 2.1)	1,440 ( 2.9)	1,880 ( 2.2)	370 ( 3.6)
45-54	3,120 ( 9.4)	1,370 ( 7.9)	1,740 (10.8)	2,600 ( 8.7)	350 (13.2)
55-64	3,070 (14.9)	1,540 (14.4)	1,530 (15.4)	2,490 (13.2)	380 (26.4)
65-74	2,310 (16.6)	1,140 (14.9)	1,160 (18.7)	1,940 (15.1)	370 (42.1)
75+	2,300 (16.6)	1,440 (16.2)	910 (18.4)	2,120 (16.1)	190 (30.5)
<b>Total</b> (95% CI**)	<b>13,320 ( 7.4)</b> (±1,350)	<b>6,570 ( 7.0)</b> (±910)	<b>6,780 ( 7.8)</b> (±980)	<b>11,030 ( 6.9)</b> (±1,200)	<b>1,660 (10.8)</b> (±500)

\* Difference in totals is due to presence of 810 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Kalamazoo County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the eighth leading cause of death for Kalamazoo County residents. Diabetes was the primary cause of death for 54 individuals (2.8% of all deaths) and a contributing cause in an additional 89 deaths (4.5%).<sup>6</sup>

### Deaths in Kalamazoo County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	Male	White	Female	Male
0-44	5 (NA)	2 (NA)	3 (NA)		0 (NA)	0 (NA)
45-54	2 (NA)	1 (NA)	1 (NA)		0 (NA)	0 (NA)
55-64	4 (NA)	0 (NA)	2 (NA)		0 (NA)	2 (NA)
65-74	10 (4.33)	0 (NA)	6 (NA)		3 (NA)	1 (NA)
75+	33 (14.35)	21 (16.54)	10 (12.20)		1 (NA)	1 (NA)
<b>Total</b>	<b>54 (4.05)</b>	<b>24 (4.53)</b>	<b>22 (3.94)</b>		<b>4 (NA)</b>	<b>4 (NA)</b>

\*Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 4,078 hospital discharges of Kalamazoo County residents where diabetes was listed among the diagnoses. There were 264 (6.5%) of these hospitalizations that were directly due to diabetes, while an additional 1,272 (31.2%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 3,299 discharges with 241 (7.3%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	241	7.3%	264	6.5%
Hypertension	29	0.9%	44	1.1%
Other CVD	1,042	31.6%	1,228	30.1%
Kidney	29	0.9%	47	1.2%
Pneumonia	135	4.1%	153	3.8%
Other	1,823	55.3%	2,342	57.4%
<b>TOTAL</b>	<b>3,299</b>		<b>4,078</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 28 or 10.6% of the 264 hospital discharges with a primary diagnosis of diabetes. This compares to 30 amputations or 12.5% of the 241 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN LENAWEE COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Lenawee County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **5,370 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **600 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **60 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **2,190 Lenawee County adults have diabetes but are not aware of it.**<sup>4</sup> Among Lenawee County adults, **15,772 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Lenawee County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	910 ( 2.4)	490 ( 2.7)	410 ( 2.1)	860 ( 2.4)
45-54	1,120 ( 7.4)	640 ( 8.6)	480 ( 6.2)	1,030 ( 7.0)
55-64	1,210 (12.3)	540 (10.9)	660 (13.6)	1,180 (12.2)
65-74	1,050 (16.1)	600 (17.2)	450 (14.9)	1,000 (15.6)
75+	1,080 (17.6)	650 (16.6)	430 (19.0)	1,060 (17.3)
<b>Total</b> (95% CI**)	<b>5,370 ( 7.2)</b> (±600)	<b>2,920 ( 7.7)</b> (±420)	<b>2,430 ( 6.8)</b> (±440)	<b>5,130 ( 7.2)</b> (±600)

\* Difference in totals is due to presence of 260 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Lenawee County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the fifth leading cause of death for Lenawee County residents. Diabetes was the primary cause of death for 35 individuals (4.2% of all deaths) and a contributing cause in an additional 63 deaths (7.5%).<sup>6</sup>

### Deaths in Lenawee County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	1 (NA)	0 (NA)	1 (NA)	1 (NA)
45-54	2 (NA)	0 (NA)	2 (NA)	2 (NA)
55-64	4 (NA)	1 (NA)	3 (NA)	3 (NA)
65-74	3 (NA)	3 (NA)	0 (NA)	0 (NA)
75+	25 (23.15)	17 (26.98)	8 (19.05)	8 (19.05)
<b>Total</b>	<b>35 (6.52)</b>	<b>21 (7.58)</b>	<b>14 (5.98)</b>	<b>14 (5.98)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 2,066 hospital discharges of Lenawee County residents where diabetes was listed among the diagnoses. There were 129 (6.2%) of these hospitalizations that were directly due to diabetes, while an additional 625 (30.3%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 1,669 discharges with 104 (6.2%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	104	6.2%	129	6.2%
Hypertension	15	0.9%	23	1.1%
Other CVD	578	34.6%	602	29.1%
Kidney	24	1.4%	18	0.9%
Pneumonia	50	3.0%	44	2.1%
Other	898	53.8%	1,250	60.5%
<b>TOTAL</b>	<b>1,669</b>		<b>2,066</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 15 or 11.6% of the 129 hospital discharges with a primary diagnosis of diabetes. This compares to 11 amputations or 10.6% of the 104 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN ST. JOSEPH COUNTY

## Estimated Number of Persons With Diabetes (PWD) in St. Joseph County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **3,290 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **220 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **40 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **1,350 St. Joseph County adults have diabetes but are not aware of it.**<sup>4</sup> Among St. Joseph County adults, **9,549 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in St. Joseph County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	550 ( 2.4)	300 ( 2.7)	250 ( 2.1)	520 ( 2.4)
45-54	640 ( 7.4)	380 ( 8.6)	260 ( 6.2)	590 ( 7.0)
55-64	750 (12.3)	340 (10.9)	410 (13.6)	720 (12.2)
65-74	670 (16.1)	390 (17.2)	280 (14.9)	630 (15.6)
75+	680 (17.6)	410 (16.6)	270 (19.0)	650 (17.3)
<b>Total</b> (95% CI**)	<b>3,290 ( 7.2)</b> (±370)	<b>1,820 ( 7.7)</b> (±260)	<b>1,470 ( 6.8)</b> (±260)	<b>3,110 ( 7.2)</b> (±360)

\* Difference in totals is due to presence of 160 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in St. Joseph County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for St. Joseph County residents. Diabetes was the primary cause of death for 26 individuals (4.6% of all deaths) and a contributing cause in an additional 41 deaths (7.3%).<sup>6</sup>

### Deaths in St. Joseph County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	2 (NA)	1 (NA)		1 (NA)
45-54	3 (NA)	1 (NA)		1 (NA)
55-64	1 (NA)	0 (NA)		1 (NA)
65-74	4 (NA)	3 (NA)		1 (NA)
75+	16 (23.53)	10 (25.64)		5 (NA)
<b>Total</b>	<b>26 (7.90)</b>	<b>15 (8.82)</b>		<b>9 (6.34)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 1,423 hospital discharges of St. Joseph County residents where diabetes was listed among the diagnoses. There were 70 (4.9%) of these hospitalizations that were directly due to diabetes, while an additional 478 (33.6%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 1,199 discharges with 70 (5.8%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	70	5.8%	70	4.9%
Hypertension	16	1.3%	23	1.6%
Other CVD	429	35.8%	455	32.0%
Kidney	6	0.5%	26	1.8%
Pneumonia	39	3.3%	51	3.6%
Other	639	53.3%	798	56.1%
<b>TOTAL</b>	<b>1,199</b>		<b>1,423</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 5 or 7.1% of the 70 hospital discharges with a primary diagnosis of diabetes. This compares to 4 amputations or 5.7% of the 70 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

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# DIABETES IN VAN BUREN COUNTY

## Estimated Number of Persons With Diabetes (PWD) in Van Buren County

Estimates from the Michigan Behavioral Risk Factor Surveillance System (BRFSS) using a three year average, 2001-2003, indicate that in 2002 approximately **4,050 adults (aged 18 and up) have been diagnosed with diabetes.**<sup>1</sup> This includes an estimated **490 Latinos/Hispanics (8.65%)** diagnosed with diabetes.<sup>2</sup> In addition, it is estimated that **50 or 0.32% persons under the age of 18** have been diagnosed with diabetes.<sup>3</sup> National studies suggest that an additional **1,700 Van Buren County adults have diabetes but are not aware of it.**<sup>4</sup> Among Van Buren County adults, **12,308 have pre-diabetes** (40.1% of adults 40-74 years of age).<sup>5</sup>

### Estimated Number of Persons in Van Buren County in 2002 Diagnosed with Diabetes (Rate per 100)<sup>1</sup>

Age Group	Total*	Female	Male	White
18-44	670 ( 2.4)	380 ( 2.7)	290 ( 2.1)	620 ( 2.4)
45-54	870 ( 7.4)	500 ( 8.6)	360 ( 6.2)	780 ( 7.0)
55-64	920 (12.3)	420 (10.9)	500 (13.6)	870 (12.2)
65-74	810 (16.1)	460 (17.2)	340 (14.9)	720 (15.6)
75+	780 (17.6)	440 (16.6)	340 (19.0)	700 (17.3)
<b>Total</b> (95% CI**)	<b>4,050 ( 7.2)</b> (±450)	<b>2,200 ( 7.7)</b> (±320)	<b>1,830 ( 6.8)</b> (±320)	<b>3,690 ( 7.2)</b> (±440)

\* Difference in totals is due to presence of 330 of "other races" in the survey and the effects of rounding.

\*\* 95% CI represents the range within which the actual number of persons with diabetes in Van Buren County may fall with 95% confidence.

## Diabetes Deaths

In 2002, diabetes was the sixth leading cause of death for Van Buren County residents. Diabetes was the primary cause of death for 24 individuals (3.5% of all deaths) and a contributing cause in an additional 45 deaths (6.6%).<sup>6</sup>

### Deaths in Van Buren County of PWD for the Year 2002 with Diabetes Listed as the Primary Cause Number of Deaths (Rates per 1,000 Diabetic Population)

Age Group	Total*	Female	White	Male
0-44	0 (NA)	0 (NA)		0 (NA)
45-54	0 (NA)	0 (NA)		0 (NA)
55-64	2 (NA)	1 (NA)		1 (NA)
65-74	6 (NA)	3 (NA)		2 (NA)
75+	16 (20.51)	10 (25.00)		5 (NA)
<b>Total</b>	<b>24 (5.93)</b>	<b>14 (7.07)</b>		<b>8 (4.71)</b>

\* Any difference in the totals is due to presence of deaths of "other races". NA – Not Able to calculate with 6 or less deaths

**Diabetes Hospitalizations Reported in the Michigan Inpatient Data Base (MIDB)**<sup>7</sup> In 2002, there were 1,579 hospital discharges of Van Buren County residents where diabetes was listed among the diagnoses. There were 84 (5.3%) of these hospitalizations that were directly due to diabetes, while an additional 587 (37.2%) involved hypertension and cardiovascular disease, conditions commonly associated with diabetes. In 2000, the comparable figures were 1,316 discharges with 90 (6.8%) directly attributed to diabetes.

### Primary Reason for Hospitalization

Condition	2000		2002	
	Count	Percent	Count	Percent
Diabetes	90	6.8%	84	5.3%
Hypertension	16	1.2%	25	1.6%
Other CVD	464	35.3%	562	35.6%
Kidney	14	1.1%	19	1.2%
Pneumonia	55	4.2%	67	4.2%
Other	677	51.4%	822	52.1%
<b>TOTAL</b>	<b>1,316</b>		<b>1,579</b>	

### Non-Traumatic Lower Limb Amputations

In 2002, some form of non-traumatic lower limb amputation occurred in 6 or 7.1% of the 84 hospital discharges with a primary diagnosis of diabetes. This compares to 16 amputations or 17.8% of the 90 hospitalizations of persons with diabetes in 2000.

- 1) Michigan 2002 population estimates and the three year (2001-03) average from the Behavioral Risk Factor Surveillance System (BRFSS) - a statewide telephone survey of Michigan residents ages 18 years and older.
- 2) BRFSS data 2001 - 2003 rate of 8.65% ±1.64 Confidence Interval of 95% (CI).
- 3) Blue Cross/Blue Shield of Michigan Paid Claims Data, 2001 and BRFSS 2001-2003 data.
- 4) National Health and Nutrition Examination Survey, III 1988-1994 (NHANES III Series 11, No. 1).
- 5) US Health and Human Services news release, March 27, 2004.
- 6) Michigan Department of Community Health (MDCH) 2002 resident death data files.
- 7) Michigan Inpatient (hospital discharge) Database (MIDB) for 2002.

Further information can be obtained from:

Michigan Department of Community Health, Division of Chronic Disease and Injury Control/Diabetes, Kidney and Other Chronic Diseases Section  
by calling (517) 335-8445 or on the WEB at: <http://www.michigan.gov/diabetes>